ANSH SRIVASTAVA

AI Engineer — Automation Engineer — Backend Developer

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PROFESSIONAL SUMMARY

- AI and Automation Engineer with over **5 years of hands-on Python experience** (4 years during B.Tech and 1 year in industry), with proven expertise in designing and deploying **intelligent workflow automation**, **scalable backend systems**, and **cloud-native architectures**. Specialized in **enterprise-grade process automation**, **data integration**, and **API-driven platforms** that enhance operational efficiency and system resilience.
- Skilled in architecting **event-driven microservices** and **enterprise architecture solutions** that enable real-time orchestration, SLA-based performance optimization, and measurable business impact.
- Hands-on experience with modern **cloud infrastructure**, including **AWS** and **Oracle Cloud Infrastructure (OCI)**, delivering secure, scalable, and high-availability automation frameworks aligned with enterprise deployment standards.
- Areas of focus: **AI-driven workflow automation**, **cloud integration**, **backend engineering**, **process orchestration**, **enterprise architecture**, **data integration**, and **SLA & KPI performance tracking**.

TECHNICAL / ADDITIONAL SKILLS

Languages: Python, C#, C, C++, SQL, JavaScript, Java, HTML, CSS, PHP, TypeScript

Python Experience: 5 years total (4 years academic + 1 year industry), including backend automation, data integration, and AI workflows.

Coursework: Data Structures and Algorithms, Operating Systems, DBMS, RDBMS, Computer Networks

Frameworks / Tools: LangChain, GenAI, AgenticAI, RAG, CrewAI, AI Agents, Machine Learning, Flask, Node.js, n8n, Jenkins, WinSCP, pytest, NUnit, Git/GitHub, VS Code, Odoo ERP

AI & MLOps: LLM Ops, Prompt Engineering, Model Deployment, Model Evaluation, Vector Databases, LangSmith, MLOps Pipelines

Cloud & Infrastructure: AWS Cloud — EC2, S3, RDS, Lambda, API Gateway, CloudFormation, VPC, IAM, CloudWatch, CloudTrail, Route 53, CloudFront, Microservice Architecture, Serverless Deployment, Containerization (Docker & Kubernetes), Observability, CI/CD automation (CodePipeline, Jenkins), Security Management, and Cost Optimization.

Databases: SQL, PostgreSQL, Supabase, MySQL, MSSQL, NoSQL, MongoDB, SQLite, XML, YAML, JSON

APIs / Integrations: REST APIs, GraphQL, gRPC, Monday.com API, Twilio API, Google Maps API, SMTP, Webhooks, ORDS, EDI File Processing, API Gateway Integrations, API Gateway Policies, API Security, Rate Limiting, Event-Driven Pipelines

Networking & Security: Networking Fundamentals, TCP/IP, IPv4/IPv6 Addressing, DHCP, ARP, Routing Switching, Network Segmentation, Wireless Mobile Networks, Network Configuration Troubleshooting, Endpoint Support, Cybersecurity Threats Vulnerabilities, Network Access Control, and Secure Communication Protocols.

Core Competencies: Intelligent Workflow Automation, Enterprise Architecture, Oracle Integration Services, Data Integration, Process Automation, Backend Engineering, SLA & KPI Performance Tracking, Scalability & Reliability Engineering, Cloud-Native Development, API-First Architecture, Observability & Monitoring, Security Compliance

Soft Skills: Analytical Thinking, Process Optimization, Technical Documentation, Cross-Functional Collaboration, Time Management

WORK EXPERIENCE

Renie Tech Trading LLC   **Jul 2025 – Oct 2025**
(AI Engineer)   *(Remote)*

- Architected and deployed **AI-driven automation frameworks** and **cloud-native backend systems** using Python, LangChain, LLMs, n8n, Node.js, PostgreSQL, Supabase, and Monday.com API, increasing system throughput by **40%** and improving operational scalability.
- Delivered two enterprise-grade solutions: **Offline Bin Automation** — intelligent monitoring and process orchestration using Twilio API, SMTP, and Google Maps API; and **Renie Bin Design Automation** — AI-powered SVG rendering pipeline with CrewAI and AgentAI, processing **1.2k+ alerts/day** and achieving **90% reduction in manual workflows**.

- Implemented event-driven **microservice architecture** with real-time **data integration**, intelligent routing, and SLA-based escalation handling, reducing average incident resolution time by **45%** and ensuring **99.9% system uptime**.
- Integrated observability and monitoring components to enable proactive alerting, ensuring **95th percentile latency under 2 minutes** for escalation handling and stable performance at production scale.

Vensure Employer Solutions   Sept 2024 – Jun 2025
(Data Engineer)   *(On-site)*
- Engineered automated **EDI file processing pipelines** (834, CSV, Fixed Width) using C#, Python, SQL, and REST APIs, processing **50k+ records/day** with **100% data accuracy** and **95% automated test coverage** through pytest and NUnit.
- Developed and orchestrated secure **cloud-based SFTP workflows** using Python, WinSCP, Jenkins, and cron jobs, increasing transfer reliability by **35%** and reducing downtime by **28%**.
- Enhanced **data integration** and QA frameworks with regex-based mapping logic and automated validations, decreasing defect rates by **22%** and improving SLA delivery time by **30%**.
- Collaborated with cross-functional teams to align data pipelines with **enterprise architecture**, ensuring **99% data delivery compliance**, observability, and KPI-driven performance monitoring.

PROJECTS

Offline Bin Automation — AI-Integrated Workflow Platform   Completed
(Renie Tech Trading LLC)
- Architected an **intelligent workflow automation platform** to detect, classify, and service offline IoT bins using **n8n**, PostgreSQL (Supabase), Twilio API, SMTP, Google Maps API, and Monday.com API, deployed on **cloud infrastructure** with seamless **API-driven architecture**.
- Implemented **event-driven microservice architecture** with real-time **cloud integration** and automated escalation workflows, achieving **zero missed escalations** and **90% manual work reduction**.
- Established SLA monitoring and performance metrics for routing and resolution timelines, enhancing **enterprise-level scalability** and reliability.

Bin Design Automation — AI-Powered Rendering Engine   Completed
(Renie Tech Trading LLC)
- Developed an **AI-driven automation pipeline** for SVG rendering, validation, and export using Python, CrewAI, AgentAI, and LangChain, integrated through a modular **API-first design** to accelerate production workflows.
- Structured modular components (renderer, exporter, validators) with **process orchestration** and intelligent template versioning, achieving **80% faster processing time** and improved design delivery consistency.
- Integrated QA automation and backend orchestration to ensure template standardization and scalable deployment aligned with **enterprise architecture** and **cloud-native patterns**.

Smart Attendance Automation Platform — RFID and Facial Recognition   Academic Project
(KIET Group of Institutions)
- Engineered a real-time **attendance automation system** integrating Python (OpenCV, NumPy), PHP, and MySQL backend for **secure and scalable identity management**.
- Implemented **data synchronization**, authentication workflows, and backend integration with **cloud-ready deployment** and **API-driven architecture** to ensure reliable performance.

Real Estate Price Prediction Model — ML Pipeline   Academic Project
(KIET Group of Institutions)
- Developed a **machine learning pipeline** using Linear Regression, Random Forest, and Gradient Boosting to predict property prices with improved accuracy through feature engineering and optimization.
- Applied **data preprocessing**, transformation, and model evaluation techniques, with results designed for integration into **cloud-based API services** and scalable deployment environments.

CERTIFICATIONS

- **Introduction to Artificial Intelligence (AI) by IBM** Coursera
- **Data Structures by University of California San Diego** Coursera
- **Object-Oriented Python by Codio** Coursera
- **Networking Basics by Cisco Networking Academy** Cisco
- **Network Support and Security by Cisco Networking Academy** Cisco

INTERNSHIP

(AWS Academy Cloud Foundations) **Sept 2022 – Nov 2022**

- Completed AWS Academy Cloud Foundations with hands-on exposure to **cloud infrastructure**, compute, storage, and networking services, strengthening technical proficiency in enterprise-grade cloud environments.
- Gained practical skills in **cloud-native deployment**, infrastructure management, and performance monitoring, aligning with scalable architecture and SLA-based system optimization.
- Developed foundational understanding of **data integration**, security best practices, and process orchestration essential for intelligent automation and backend systems in modern enterprise applications.

EDUCATION

KIET Group of Institutions, Delhi-NCR, Ghaziabad **2020 - 2024**
B.Tech in Computer Science Engineering *6.05/10 CGPA*

GLORIOUS ACADEMY DAFI LANKA VARANASI UP, Varanasi **2017 - 2018**
Senior Secondary School, CBSE *59.4%*

BAL VIDYA MADHYAMIC SCHOOL, Varanasi **2015 - 2016**
Secondary School, CBSE *8.2/10 CGPA*

EXTRA CURRICULAR ACTIVITIES

Core Member — FC KIET (Football Club)

- Served as a core team member of FC KIET, contributing to the club's success at RANN (2022 2023) through **strategic planning**, disciplined execution, and collaborative leadership.
- Developed strong **team coordination** and **performance optimization** skills, aligning with enterprise team structures and high-performance environments.
- Applied structured problem-solving and data-informed strategies to improve match performance — demonstrating transferable skills relevant to process optimization and results-driven execution.

LANGUAGES / INTERESTS

- **Languages:** Fluent in English and Hindi
- **Interests:** Football and Cricket (**strategic teamwork**, performance optimization), Chess (**structured decision-making**, analytical reasoning), Reading (**continuous learning**, innovation mindset)